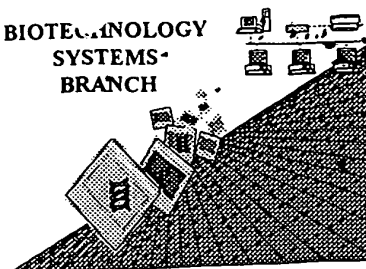


0590
0901

BIOTECHNOLOGY
SYSTEMS
BRANCH



RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/667237
Source: OIPB
Date Processed by STIC: 09/14/2001

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER
VERSION 3.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND
TRADEMARK OFFICE WEBSITE. SEE BELOW:

Checker Version 3.0

The Checker Version 3.0 application is a state-of-the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 - 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.

Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO). Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be down loaded from the USPTO website at the following address:

<http://www.uspto.gov/web/offices/pac/checker>

Raw Sequence Listing Error Summary

ERROR DETECTED

SUGGESTED CORRECTION

SERIAL NUMBER: 09/667 237

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1 Wrapped Nucleics
Wrapped Aminos The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."
- 2 Invalid Line Length The rules require that a line not exceed 72 characters in length. This includes white spaces.
- 3 Misaligned Amino
Numbering The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.
- 4 Non-ASCII The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.
- 5 Variable Length Sequence(s) contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.
- 6 PatentIn 2.0
"bug" A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s). Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.
- 7 Skipped Sequences
(OLD RULES) Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence:
(2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
(i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)
(xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
This sequence is intentionally skipped

Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.
- 8 Skipped Sequences
(NEW RULES) Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence.
<210> sequence id number
<400> sequence id number
000
- 9 Use of n's or Xaa's
(NEW RULES) Use of n's and/or Xaa's have been detected in the Sequence Listing.
Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.
In <220> to <223> section, please explain location of n or Xaa; and which residue n or Xaa represents.
- 10 Invalid <213>
Response Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence
- 11 Use of <220> Sequence(s) missing the <220> "Feature" and associated numeric identifiers and responses.
Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.
(See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)
- 12 PatentIn 2.0
"bug" Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.
- 13 Misuse of n n can only be used to represent a single nucleotide in a nucleic acid sequence. N is not used to represent any value not specifically a nucleotide.

OIPE

RAW SEQUENCE LISTING

DATE: 09/14/2001

PATENT APPLICATION: US/09/667,237

TIME: 11:10:19

Input Set : A:\ES.txt

Output Set: N:\CRF3\09142001\I667237.raw

3 <110> APPLICANT: REINL, Stephen
 4 LINDBO, John
 5 TURPEN, T
 7 <120> TITLE OF INVENTION: CREATION OF VARIABLE LENGTH AND SEQUENCE LINKER REGIONS FOR
 DUAL-DOMAIN OR
 8 MULTI-DOMAIN MOLECULES
 10 <130> FILE REFERENCE: 18696-169197
 12 <140> CURRENT APPLICATION NUMBER: 09/667,237
 13 <141> CURRENT FILING DATE: 2000-09-22
 15 <150> PRIOR APPLICATION NUMBER: US 60/155,978
 16 <151> PRIOR FILING DATE: 1999-09-24
 18 <160> NUMBER OF SEQ ID NOS: 51
 20 <170> SOFTWARE: PatentIn version 3.0
 22 <210> SEQ ID NO: 1
 23 <211> LENGTH: 9
 24 <212> TYPE: PRT
 C--> 25 <213> ORGANISM: Artificial/Unknown
 27 <220> FEATURE:
 28 <221> NAME/KEY: misc_feature
 29 <222> LOCATION: ()..()
 30 <223> OTHER INFORMATION: linker
 33 <400> SEQUENCE: 1
 35 Pro Gly Ile Ser Gly Gly Gly Gly Gly
 36 1 5
 38 <210> SEQ ID NO: 2
 39 <211> LENGTH: 16
 40 <212> TYPE: PRT
 C--> 41 <213> ORGANISM: Artificial/Unknown
 43 <220> FEATURE:
 44 <221> NAME/KEY: misc_feature
 45 <222> LOCATION: ()..()
 46 <223> OTHER INFORMATION: linker
 49 <400> SEQUENCE: 2
 51 Asn Asn Asn Asn Asn Asn Asn Asn Asn Asn Leu Gly Ile Glu Gly Arg
 52 1 5 10 15
 54 <210> SEQ ID NO: 3
 55 <211> LENGTH: 15
 56 <212> TYPE: PRT
 C--> 57 <213> ORGANISM: Artificial/Unknown
 59 <220> FEATURE:
 60 <221> NAME/KEY: misc_feature
 61 <222> LOCATION: ()..()
 62 <223> OTHER INFORMATION: linker
 65 <400> SEQUENCE: 3
 67 Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
 68 1 5 10 15
 70 <210> SEQ ID NO: 4
 71 <211> LENGTH: 30

*Entered
 213 response
 Acceptable response are "Unknown"
 "Artificial Sequence" only
 or the name of some specific
 species. Mh*

RAW SEQUENCE LISTING

DATE: 09/14/2001

PATENT APPLICATION: US/09/667,237

TIME: 11:10:19

Input Set : A:\ES.txt

Output Set: N:\CRF3\09142001\I667237.raw

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72 <212> TYPE: DNA
C--> 73 <213> ORGANISM: Artificial/Unknown
75 <220> FEATURE:
76 <221> NAME/KEY: misc_feature
77 <222> LOCATION: ()..()
78 <223> OTHER INFORMATION: primer
81 <400> SEQUENCE: 4
82 gtggcatgca ggttcaactg gtggagtctg 30
85 <210> SEQ ID NO: 5
86 <211> LENGTH: 26
87 <212> TYPE: DNA
C--> 88 <213> ORGANISM: Artificial/Unknown
90 <220> FEATURE:
91 <221> NAME/KEY: misc_feature
92 <222> LOCATION: (1)..(3)
93 <223> OTHER INFORMATION: "asy" can appear from 1 to 50 times before the remainder of
the
94     sequence
97 <220> FEATURE:
98 <221> NAME/KEY: misc_feature
99 <222> LOCATION: ()..()
100 <223> OTHER INFORMATION: primer
103 <400> SEQUENCE: 5
104 asytgaggag acggtgacca gggttc 26
107 <210> SEQ ID NO: 6
108 <211> LENGTH: 41
109 <212> TYPE: DNA
C--> 110 <213> ORGANISM: Artificial/Unknown
112 <220> FEATURE:
113 <221> NAME/KEY: misc_feature
114 <222> LOCATION: ()..()
115 <223> OTHER INFORMATION: primer
118 <400> SEQUENCE: 6
119 asyasyasya syasyasytg aggagacggt gaccagggtt c 41
122 <210> SEQ ID NO: 7
123 <211> LENGTH: 50
124 <212> TYPE: DNA
C--> 125 <213> ORGANISM: Artificial/Unknown
127 <220> FEATURE:
128 <221> NAME/KEY: misc_feature
129 <222> LOCATION: ()..()
130 <223> OTHER INFORMATION: primer
133 <400> SEQUENCE: 7
134 asyasyasya syasyasyas yasyasytga ggagacggtg accagggttc 50
137 <210> SEQ ID NO: 8
138 <211> LENGTH: 29
139 <212> TYPE: DNA
C--> 140 <213> ORGANISM: Artificial/Unknown
142 <220> FEATURE:
143 <221> NAME/KEY: misc_feature

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RAW SEQUENCE LISTING

DATE: 09/14/2001

PATENT APPLICATION: US/09/667,237

TIME: 11:10:19

Input Set : A:\ES.txt

Output Set: N:\CRF3\09142001\I667237.raw

```

144 <222> LOCATION: (1)..(3)
145 <223> OTHER INFORMATION: "rst" can appear from 1 to 50 times before the remainder of
the
146     sequence
149 <220> FEATURE:
150 <221> NAME/KEY: misc_feature
151 <222> LOCATION: ()..()
152 <223> OTHER INFORMATION: primer
155 <400> SEQUENCE: 8
156 rstgacattc agatgaccca gtctccttc 29
159 <210> SEQ ID NO: 9
160 <211> LENGTH: 39
161 <212> TYPE: DNA
C--> 162 <213> ORGANISM: Artificial/Unknown
164 <220> FEATURE:
165 <221> NAME/KEY: misc_feature
166 <222> LOCATION: ()..()
167 <223> OTHER INFORMATION: primer
170 <400> SEQUENCE: 9
171 caccctaggc tatcgtttga tcagtacctt ggtcccctg 39
174 <210> SEQ ID NO: 10
175 <211> LENGTH: 44
176 <212> TYPE: DNA
C--> 177 <213> ORGANISM: Artificial/Unknown
179 <220> FEATURE:
180 <221> NAME/KEY: misc_feature
181 <222> LOCATION: ()..()
182 <223> OTHER INFORMATION: primer
185 <400> SEQUENCE: 10
186 rstrstrstr strstrstga cattcagatg acccagtctc cttc 44
189 <210> SEQ ID NO: 11
190 <211> LENGTH: 53
191 <212> TYPE: DNA
C--> 192 <213> ORGANISM: Artificial/Unknown
194 <220> FEATURE:
195 <221> NAME/KEY: misc_feature
196 <222> LOCATION: ()..()
197 <223> OTHER INFORMATION: primer
200 <400> SEQUENCE: 11
201 rstrstrstr strstrstgs trstrstgac attcagatga cccagtctcc ttc 53
204 <210> SEQ ID NO: 12
205 <211> LENGTH: 38
206 <212> TYPE: DNA
C--> 207 <213> ORGANISM: Artificial/Unknown
209 <220> FEATURE:
210 <221> NAME/KEY: misc_feature
211 <222> LOCATION: ()..()
212 <223> OTHER INFORMATION: linker region nucleotide sequence
215 <400> SEQUENCE: 12
216 atactgctac tgggtgctagt actactgctg gtgctagt 38

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RAW SEQUENCE LISTING DATE: 09/14/2001
 PATENT APPLICATION: US/09/667,237 TIME: 11:10:19

Input Set : A:\ES.txt
 Output Set: N:\CRF3\09142001\I667237.raw

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219 <210> SEQ ID NO: 13
220 <211> LENGTH: 13
221 <212> TYPE: PRT
C--> 222 <213> ORGANISM: Artificial/Unknown
224 <220> FEATURE:
225 <221> NAME/KEY: misc_feature
226 <222> LOCATION: ()..()
227 <223> OTHER INFORMATION: linker region amino acid sequence
230 <400> SEQUENCE: 13
232 Thr Thr Ala Thr Gly Ala Ser Thr Thr Ala Gly Ala Ser
233 1 5 10
235 <210> SEQ ID NO: 14
236 <211> LENGTH: 39
237 <212> TYPE: DNA
C--> 238 <213> ORGANISM: Artificial/Unknown
240 <220> FEATURE:
241 <221> NAME/KEY: misc_feature
242 <222> LOCATION: ()..()
243 <223> OTHER INFORMATION: linker region nucleotide sequence
246 <400> SEQUENCE: 14
247 gctactgctg ctagtggtgc tgctgctggt ggtggtact 39
250 <210> SEQ ID NO: 15
251 <211> LENGTH: 13
252 <212> TYPE: PRT
C--> 253 <213> ORGANISM: Artificial/Unknown
255 <220> FEATURE:
256 <221> NAME/KEY: misc_feature
257 <222> LOCATION: ()..()
258 <223> OTHER INFORMATION: linker region amino acid sequence
261 <400> SEQUENCE: 15
263 Ala Thr Ala Ala Ser Gly Ala Ala Ala Gly Gly Gly Thr
264 1 5 10
266 <210> SEQ ID NO: 16
267 <211> LENGTH: 39
268 <212> TYPE: DNA
C--> 269 <213> ORGANISM: Artificial/Unknown
271 <220> FEATURE:
272 <221> NAME/KEY: misc_feature
273 <222> LOCATION: ()..()
274 <223> OTHER INFORMATION: linker region nucleotide sequence
277 <400> SEQUENCE: 16
278 gctactggtg ctagtactag tgctactgct ggtggtagt 39
281 <210> SEQ ID NO: 17
282 <211> LENGTH: 13
283 <212> TYPE: PRT
C--> 284 <213> ORGANISM: Artificial/Unknown
286 <220> FEATURE:
287 <221> NAME/KEY: misc_feature
288 <222> LOCATION: ()..()

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RAW SEQUENCE LISTING

DATE: 09/14/2001

PATENT APPLICATION: US/09/667,237

TIME: 11:10:19

Input Set : A:\ES.txt

Output Set: N:\CRF3\09142001\I667237.raw

289 <223> OTHER INFORMATION: linker region amino acid sequence

292 <400> SEQUENCE: 17

294 Ala Thr Gly Ala Ser Thr Ser Ala Thr Ala Gly Gly Ser

295 1 5 10

297 <210> SEQ ID NO: 18

298 <211> LENGTH: 39

299 <212> TYPE: DNA

C--> 300 <213> ORGANISM: Artificial/Unknown

302 <220> FEATURE:

303 <221> NAME/KEY: misc_feature

304 <222> LOCATION: ()..()

305 <223> OTHER INFORMATION: linker region nucleotide sequence

308 <400> SEQUENCE: 18

309 agtactgctg ctggtactag tagtggtagt agtactggt

39

312 <210> SEQ ID NO: 19

313 <211> LENGTH: 13

314 <212> TYPE: PRT

C--> 315 <213> ORGANISM: Artificial/Unknown

317 <220> FEATURE:

318 <221> NAME/KEY: misc_feature

319 <222> LOCATION: ()..()

320 <223> OTHER INFORMATION: linker region amino acid sequence

323 <400> SEQUENCE: 19

325 Ser Thr Ala Ala Gly Thr Ser Ser Gly Ser Ser Thr Gly

326 1 5 10

328 <210> SEQ ID NO: 20

329 <211> LENGTH: 51

330 <212> TYPE: DNA

C--> 331 <213> ORGANISM: Artificial/Unknown

333 <220> FEATURE:

334 <221> NAME/KEY: misc_feature

335 <222> LOCATION: ()..()

336 <223> OTHER INFORMATION: linker region nucleotide sequence

339 <400> SEQUENCE: 20

340 gctagtactg ctactagtag tgggtggtggt ggtactggta gtagtgctgc t

51

343 <210> SEQ ID NO: 21

344 <211> LENGTH: 17

345 <212> TYPE: PRT

C--> 346 <213> ORGANISM: Artificial/Unknown

348 <220> FEATURE:

349 <221> NAME/KEY: misc_feature

350 <222> LOCATION: ()..()

351 <223> OTHER INFORMATION: linker region amino acid sequence

354 <400> SEQUENCE: 21

356 Ala Ser Thr Ala Thr Ser Ser Gly Gly Gly Thr Gly Ser Ser Ala Ala

357 1 5 10 15

359 Ala

362 <210> SEQ ID NO: 22

363 <211> LENGTH: 60

VERIFICATION SUMMARY

DATE: 09/14/2001

PATENT APPLICATION: US/09/667,237

TIME: 11:10:20

Input Set : A:\ES.txt

Output Set: N:\CRF3\09142001\I667237.raw

L:25 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:1
L:41 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:2
L:57 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:3
L:73 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:4
L:88 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:5
L:110 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:6
L:125 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:7
L:140 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:8
L:162 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:9
L:177 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:10
L:192 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:11
L:207 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:12
L:222 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:13
L:238 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:14
L:253 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:15
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L:380 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:23
L:399 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:24
L:414 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:25
L:430 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:26
L:445 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:27
L:467 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:28
L:482 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:29
L:497 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:30
L:519 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:31
L:534 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:32
L:549 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:33
L:564 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:34
L:579 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:35
L:595 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:36
L:610 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:37
L:626 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:38
L:641 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:39
L:657 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:40
L:672 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:41
L:688 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:42
L:703 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:43
L:719 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:44
L:734 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:45
L:750 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:46
L:765 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:47
L:781 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:48

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/667,237

DATE: 09/14/2001

TIME: 11:10:20

Input Set : A:\ES.txt

Output Set: N:\CRF3\09142001\I667237.raw

L:796 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:49
L:815 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:50